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OLDEST BEE PAPER IN AMERICA

GEORGE W. YORK,
Editor.

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TO BEE-CULTURE.

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Sample Free.

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NO. 20.



A Terrible Rain-Storm swept over Greenville, Tex., where Mrs. Atchley lives, and so blew her queen-rearing yards about as to result in considerable damage. If her customers, who may read this, are delayed several days in receiving queens, they will now understand the cause of it. About 500 fine cells were destroyed, besides much other loss. There was also great damage to property in the city of Greenville.

The Illinois Honey Exhibit at the World's Fair ought to be a good one. The amount of the appropriation for that purpose is \$3,500 instead of \$3,000 as announced last week.

Mr. J. M. Hambaugh and Mr. J. A. Stone, respectively President and Secretary of the Illinois State Bee-Keepers' Association, were in Chicago last week to see about space for the exhibit at the Fair. The BEE JOURNAL was favored with a call from these brethren, and they expressed the hope that the bee-keepers of this State would help to make the honey exhibit in every way what it should be.

All who have honey to exhibit, or expect to have later on, are urgently requested to correspond at once with Jas. A. Stone, of Bradfordton, Ills., or J. M. Hambaugh, of Spring, Ills., either of whom will be glad to furnish you with all necessary information.

Not Sure About Sugar Honey.—

The following is one of Bro. Root's editorial items in *Gleanings* for May 1st, and with the last paragraph we agree most fully:

Since we shut down on the sugar-honey question in our columns, we have been asked by adherents on both sides to renew the discussion, more particularly as some of the other journals were keeping it alive in their columns. We do not wish to indicate any policy for another paper, but we hardly think it wise for us to open the discussion for the present. If the production of sugar-honey is unwise, as we firmly believe it is, the best way to kill it is to say nothing about it. To vigorously oppose it is, in a certain sense, to keep it alive. The thing that we have to regret is, that it should have been discussed as much as it has in our columns, particularly as more extensive experiments should have been made, and a better knowledge of the product secured; for even Prof. Cook, in a card just received, says:

"I am not sure that sugar-honey is what I think it is; that, of course, is to be settled."

How much better to have "settled it" before saying anything about it, and so incurring great risk as to the consequences!

The Bee-Keepers' Review for May came right "on time" this month—May 10th. Bro. Hutchinson has a most beautiful and valuable number for May, having added eight extra pages. He says:

I have always rather prided myself on the small size of the *Review*. I have felt that it should be small but good.

Bro. H., we don't think any one will object if you continue to keep it "good" and also large, instead of "small." It is only another proof of Bro. Root's statement, viz.: "Apicultural journalism was never on a higher plane than now, both in quality and quantity."

"Apicultural Journalism," says Bro. Root in *Gleanings* for May 1st, "was never on a higher plane than now, both in quality and quantity." That is saying a good deal, but we know of no one who is better prepared to make the statement than Bro. Root. It speaks volumes for those who are writing for the various bee-periodicals, and now if we shall only be able to say the same of the honey crop this year, all will be well. Perhaps one of the causes of the improved "apicultural journalism" of to-day, is the poor seasons of the past few years. Now, if the yield of honey will only catch up with the advanced apiarian journalistic efforts, the publishers will all be ready to take another big stride forward. We are ready for both the large crop, and the big stride to follow it!

Texas and its Resources will be written up by Mrs. Atchley, to follow the report of the Texas State Convention, which is now being published in her department of the BEE JOURNAL. She is receiving many questions regarding Texas, and she will take this way to answer them.

Farm, Field and Fireside, published here in Chicago, at \$1.00 a year, is one of the most progressive and wide-awake agricultural periodicals published to-day. It has been issuing specially artistic and attractive numbers the past few months, and the "World's Fair Edition," issued for Saturday, May 6th, is particularly fine, and contains pictures of all the buildings at the Fair Grounds. We can club the *Farm, Field and Fireside* with the BEE JOURNAL for one year, for \$1.75.

Prevention of Swarming is a subject that has received much attention at the hands of bee-keepers with an inventive turn of mind. The latest, and, we believe, the most promising of beneficial results is the device invented by Mr. H. P. Langdon, of New York, which Mr. Frank Benton describes and illustrates on pages 627 to 630 of this number of the BEE JOURNAL.

Mr. Benton thinks that Mr. Langdon has made "one of the most valuable additions to the list of apiarian inventions that had appeared for a long time—one that, after the frame hive, would rank equal with or

ahead of the honey-extractor or comb-foundation machine."

In the *May Review*, Bro. Hutchinson says: "The fundamental principle of shifting the bees from one hive to another is one that I believe will eventually settle the swarming problem."

It will pay you to read very carefully all of Mr. Benton's article, and thus become familiar with this great advance movement in modern progressive bee-keeping.

The Progressive Bee-Keeper for May came out with a bright and clean new "face," made up of flowers and scenes characteristic of bee-culture. It was designed and engraved by the Murray-Helss Engraving Co., of Cleveland, O., who are making quite a reputation for artistic work in the line of bee-keeping. The Leahy Mfg. Co., the new publishers of the *Progressive Bee-Keeper*, are making progress very rapidly with their paper. Again the BEE JOURNAL wishes them success.

Mr. J. P. Huckabay, who attended the Texas bee-convention at the home of Mrs. Atchley, handed her 25 cents toward helping to pay her for reporting the proceedings of the meeting, and thinks that it was a mistake not to have voted to Mrs. A., at the meeting, something to pay her for her work in their behalf. If all those who attended would send Mrs. Atchley whatever they feel would be their share, we are sure it will be well invested, for Mrs. A. is a very busy woman, and is doing a grand work for bee-keeping in the South, as well as laboring in the interest of the pursuit everywhere.

Propolis as Smoker Fuel.—Mr. A. E. Manum, in a recent number of *Gleanings*, says that Mr. J. E. Crane first told him about burning propolis in his bee-smoker. Sprinkling it over the fuel in the smoker-barrel is one way to use it. Mr. Manum says:

I never tried anything that would just drive the bees out of the way as nicely as this will. I think it would be a good plan to melt up a lot of propolis and dip pieces of wood into it, and keep them handy by, to be used whenever the bees are troublesome, for it will quiet them in a moment.

Great Premium on page 613!

Anti-Adulteration Laws are being enacted by various States that are conscientious enough to care for the morals and health of their inhabitants. This is right, and a National law upon the subject will soon follow these State enactments.

An Act to prevent the adulteration of honey was introduced into the Pennsylvania State Legislature in March, a copy of which is given below, which was sent to us by Mr. G. W. Bell, of Bell's Landing, Pa.:

SECTION 1.—Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met, and it is hereby enacted by the authority of the same, That it shall be unlawful for any person or persons to adulterate honey by mixing with it any sweets of whatsoever kind not gathered from flowers or blooms, or to mix together any such sweets whether with or without honey or cause it to be done by any agency whatsoever, and to offer for sale, or sell without labeling it with the true name of its component parts with the proportion of each, and with the name and location of the manufacturer.

SEC. 2.—Any person or persons convicted of a violation of any of the provisions of Sec. 1st of this Act shall be deemed by the court guilty of misdemeanor, and shall be fined in any sum not less than one hundred dollars (\$100), and not more than five hundred dollars (\$500), one-half of said fine to go to the informer, and the other half to the school fund.

GENERAL QUESTIONS.

In this department will be answered those questions needing IMMEDIATE attention, and such as are not of sufficient special interest to require replies from the 25 or more apiarists who help to make "Queries and Replies" so interesting on another page. In the main, it will contain questions and answers upon matters that particularly interest beginners.—Ed.

Some Questions on Queen-Rearing.

1. What is the best way to rear queens?
 2. How long does it take a capped queen-cell to hatch?
 3. Do all queen-cells that have been capped contain live queens?
 4. Would bees cap cells that had no eggs or larvae?
- S. M. KIMSEY.
- Tesatee, Ga.

ANSWERS.—1. It might be somewhat presumptuous to pretend to say what was the best way, and in any case there is hardly room to give here a full answer to such a question. Most of the

text-books give instructions for rearing queens, and Doolittle's "Scientific Queen-Rearing" is an exhaustive treatise on the subject, being a book of more than 160 pages. We can send you one for \$1.00, postpaid.

2. A queen hatches in about a week after the cell is sealed.

3. No; dead queens are often found in queen-cells, having died after the cells were capped.

4. No; but it is no unusual thing to find an empty cell that seems to be regularly sealed. The explanation is that after the queen hatches out she leaves the cap attached by a little hinge, the cap returns to its old place after the queen emerges, and the bees fasten it more or less together. It looks just a little as if they were trying to play a practical joke on the bee-keeper.

Moving Bees a Short Distance.

I have 11 colonies of bees on the summer stands. Can I move them 50 feet without loss?

Bees did nothing last year in this county, but we look for a fine flow this year from white clover. There has been too much wind and rain this week for bees to work.

C. J. BENGE.

Grand View, Ind., April 22, 1893.

ANSWER.—There is some danger, but if all are moved from the old spot there may be little or no loss. Clean up the old spot, or change its looks in some way, and then set up a board or piece of glass in front of each entrance. Possibly, if a hive, when moved, is shut up and then drummed on, the bees might mark the new location when the hive is opened. They might mark you, too, if you don't get out of the way when the hive is opened, but if drummed enough they feel quite subdued.

When and How to Transfer Bees.

Please tell me through the BEE JOURNAL how to transfer bees, and when is the best time for transferring out of box-hives into frame hives.

Bellevue, Del.

W. R. WOOD.

ANSWER.—In time of fruit-bloom, is the stereotyped answer. Earlier than that there would be danger from robbing, as the operation of transferring is likely to cause some demoralization, leaving the bees in rather poor condition to defend themselves against robbers. When honey is yielding well, there is

little danger from robbers, if the operator is careful not to have a lot of dauby combs exposed.

The less honey in the combs the better for transferring, and at the time of fruit-bloom the supply on hand gets its lowest.

Later the combs are fuller; if not with honey, at least with brood. The earlier transferring also gives a chance for the bees to get in good condition for harvest, although the transferring may not materially interfere.

"Driving" Bees Explained.

In the answer to Elmer Bridenstine's question, on page 489, what is meant by "drive," and how is it done? How are the bees united with the former "drive?"

SUBSCRIBER.

ANSWER.—If an empty hive or box is placed over an inverted box-hive containing a colony, all openings for the escape of the bees being fastened up, and the sides of the box-hive be continuously pounded or drummed on for some time, the bees will commence traveling up into the upper hive or box, and if the drumming be continued long enough, nearly all the bees will go up. Such an operation is called "driving" or "drumming." "The former drive" means the bees driven out at the former time of driving.

Amerikanische Bienenzucht is the name of a bee-book printed in the German language, which we now have for sale. It is a hand-book on bee-keeping, giving the methods in use by the best American and German apiarists. Illustrated; 138 pages; price, postpaid, \$1.00. It is just the book for our German bee-keepers. We club it with the BEE JOURNAL for one year, for \$1.75.

Alley's Queen-Rearing book, or "Thirty Years Among the Bees," gives the result of over a quarter-century's experience in rearing queen-bees, and describing the practical, every-day work. By Henry Alley. It contains an "Appendix," showing the improvements made in queen-rearing the last four years. Very latest work of the kind. Nearly 100 pages, with illustrations. Price, postpaid, 50 cents; or clubbed with BEE JOURNAL one year, for \$1.30.

"Bees and Honey"—see page 613.



MR. ALLEN PRINGLE.

The subject of this sketch and illustration, Mr. Allen Pringle, of Selby, Ont., is Superintendent of the Ontario Apiarian Department at the World's Fair at Chicago. He was born 52 years ago, on April 1, 1841, in Lennox County, where he now resides. A portion of the following sketch is from the *Canadian Bee Journal*, and the balance has been written by a friend of Mr. Pringle's:

At the age of ten, young Pringle might have been seen on a wood sleigh one fine morning in April, accompanying his father to a neighboring house three miles off to get their first "skep" of bees. The colony was in what is now called "the old box-hive," and they got it home in good condition on the sled. Thus commenced the young lad's experience in bee-keeping.

Up to the age of fifteen he attended the local school in winter and assisted with the bees and farm work in summer. By that time he had acquired all the learning the average country school pedagogue could impart, besides quite a fund of antiquated bee-lore. He now began to think of doing something for himself on his own account. Accordingly one morning in May, bright and early, the self-reliant and ambitious youth started off on foot and alone to a neighboring town several miles away to attend an examination of candidates for teachers' certificates. He was successful, and duly received his certificate of qualification to teach any common school in the county.

Soon after, at the age of fifteen, he took a situation as teacher without assistant, and there ended his own schooling with the exception of a subsequent term or two in a high school. His education has been acquired for the most part outside of schools and colleges. For several years the winters were spent

teaching the "young idea how to shoot," in some of the largest and most difficult schools to manage in the whole county, and with every success; while the summers were mostly spent on the farm and amongst the bees, which, under skillful management, had increased from the original old box-hive to over half a hundred prosperous colonies.

Having readily absorbed the bee-lore possessed by all the wiseacres of the neighborhood, and hearing that a great book had been published on bees, he sent for it and got it in due course by mail. It was Quinby's "Mysteries of

management of them, supplemented by a long experience, Mr. Pringle has become one of the most skillful apiarists in America, and is looked to as an authority on bee-culture by all who know him. Though never seeking office, the office seeks him, and he has served as President and Director of the Ontario Bee-Keepers' Association for several years, doing the Association important service while its President.

Mr. Pringle is a worker in the fullest sense of that term—working with both hands and head with equal facility and effectiveness. He can turn his hand to



ALLEN PRINGLE.

Bee-Keeping Explained." From this he got new hints and valuable information, and rapidly came to the front in the science and art of bee-culture as practiced in those days. He discarded the box-hive and used a movable frame, from which he extracted the honey with an old-fashioned extractor, getting the nearest blacksmith to make him an uncapping knife from an old file, which he still uses, and which, during a quarter of a century, has shaved the caps off many tons of honey.

Through a strong love of bees and a natural adaptation to the handling and

many things, and his head and pen to many subjects. He is known as a clear, cogent and forcible writer, not only in the daily press but the monthly magazines. Prof. Cavanagh, the expert phrenologist of Toronto, in a published work, speaks of Mr. Pringle as "one of the ablest writers in America." His style is clear, critical and logical, and the man who enters the controversial arena with him may make up his mind beforehand to come out with a demoralized quill and with his feathers flying. In the field of polemics Mr. Pringle carries the heaviest kind of guns. He is one of the few

men who are thoroughly practical and utilitarian as well as theoretical and philosophical.

He makes his bee-culture and farming pay in dollars and cents; handles his large apiary alone, doing all the work; puts up and markets his honey, works on his farm, and finds time (at night) to write for bee-papers, agricultural journals, magazines and newspapers, besides conducting a large correspondence including in it some of the most eminent literateurs and scientists of the day.


Mr. Pringle is held in high esteem by all who know him as a man whose word is his bond, and whose honor and moral life are above reproach. Of his appointment (unsolicited on his part) to his present position at the World's Fair, the *Canadian Bee Journal* said it will "meet with general approval and give very general satisfaction."

CONVENTION DIRECTORY.

Time and place of meeting.

1893.
May 25.—Capital, at Springfield, Ills.
C. E. Yocom, Sec., Sherman, Ills.

Oct. 11, 12, 13.—North American (International), at Chicago, Ills.
Frank Benton, Sec., Washington, D. C.

 In order to have this table complete, Secretaries are requested to forward full particulars of the time and the place of each future meeting.—THE EDITOR.

North American Bee-Keepers' Association

PRESIDENT—Dr. C. C. Miller.... Marengo, Ills.
VICE-PRES.—J. E. Crane..... Middlebury, Vt.
SECRETARY—Frank Benton, Washington, D. C.
TREASURER—George W. York... Chicago, Ills.

National Bee-Keepers' Union.

PRESIDENT—Hon. R. L. Taylor..Lapeer, Mich.
GEN'L MANAGER—T. G. Newman, Chicago, Ill.

"A Modern Bee-Farm and Its Economic Management," is the title of a splendid book on practical bee-culture, by Mr. S. Simmins, of England. It is 5 $\frac{1}{2}$ x 8 $\frac{1}{2}$ inches in size, and contains 270 pages, nicely illustrated, and bound in cloth. It shows "how bees may be cultivated as a means of livelihood; as a health-giving pursuit; and as a source of recreation to the busy man." It also illustrates how profits may be "made certain by growing crops yielding the most honey, having also other uses; and by judgment in breeding a good working strain of bees." Price, post-paid, from this office, \$1.00; or clubbed with the *BEE JOURNAL* for one year, for \$1.70.



CONDUCTED BY

Mrs. Jennie Atchley,

GREENVILLE, TEXAS.

Report of the Texas State Bee-Keepers' Convention.

(Continued from page 590).

The following was omitted by mistake from the report of the first day's proceedings:

HIVING OF SWARMS.

Dr. Marshall stated that the labor of hiving was lessened by having objects, such as large knots of trees, or something that resembled a swarm of bees, and when the bees once settled on an object, the rest were likely to cluster on the same object.

Mr. A. M. Tuttle asked, "Which is best to hive swarms on, combs or starters?" J. A. Meeks uses combs, and one after another arose and gave their preference to fully built out combs to anything, as if we have our houses all ready furnished, it is much better for us than if we move into them empty.

THE VARIETY OF BEES.

This came up as a general question. Dr. Howard puts blacks and Italians on an equal footing as mechanics, except the blacks capped their honey whiter than Italians.

Dr. Marshall thought we had better Italian bees in America now than they had in Italy, as the Italian bees had been bred and improved upon by our shrewd American apiarists until he would take American Italians first.

Now we are ready to begin the report of the

SECOND DAY—MORNING SESSION.

The convention was called to order at 9 o'clock a.m., with Vice-President Dr. W. K. Marshall in the chair, President Wm. R. Graham doing the honors as host.

The question-box was opened, and the following discussed :

COMB OR EXTRACTED HONEY ?

"Which is the more profitable, comb or extracted honey?"

Dr. Marshall—That depends largely upon the honey market.

C. J. Cutler—I find no difficulty in selling comb honey at 20 cents per pound.

J. D. Givens, of Lisbon—I sell extracted honey at my door at 10 cents per pound. Comb honey, at Dallas and Oak Cliff, readily sells at 15 to 20 cents. I can produce twice as much extracted honey. I grade my comb honey; when the sections are full one pound it is classed grade No. 1, when they fall two ounces short, grade No. 2, and when more than two ounces short, grade No. 3.

A. M. Tuttle, of Gainesville—Almost every one in Gainesville wants comb honey; the country around buys more extracted. I can produce more than double the quantity in extracted honey. I sell extracted for 10 cents, and comb honey for from 12½ to 15 cents per pound.

George Wilson, of McKinney—I produce extracted honey exclusively, and find ready sale at 10 cents per pound.

J. F. Teel—I produce both kinds, can get more extracted than comb honey, but I get the best price for comb honey. The profit will depend largely upon market demand.

BEST MANAGEMENT FOR PRODUCING HONEY.

The next question discussed was the following :

"What is the most practical method of management of the apiary, for the production of honey—both extracted and comb?"

Dr. Howard, of Fort Worth—Build up the colonies, and have them strong and ready for the honey-flow. I would never take from strong colonies to build up weak ones, as we might lose the working strength of more than one colony, at a time when the production of honey would be worth more than the production of bees. When I had bees I worked for extracted honey exclusively, except in one small yard of about two dozen colonies of black bees, away from home, which was worked for comb honey. By always having plenty of extra combs I never failed in getting the full benefit of the honey harvest. By extracting all the honey in the yard the last of July, the fall honey-flow was devoted to the

production of combs, and as mentioned in my essay of yesterday, the pungent honey gathered in the fall was utilized in breeding up in the spring. To induce bees to commence in the boxes, a good way when the brood-chamber is full of honey, is to drive the bees into the boxes by smoking them, which causes them to fill themselves before entering the supers; this done at night they will commence the work of comb-building in the sections to deposit the honey they carried with them from the brood-chamber. I have never produced comb honey to any great extent, and cannot say what proportion of profit might obtain in the production of comb or extracted honey, but I believe that I can produce 3 or 4 times as much extracted honey.

J. R. Atchley, of Arlington—I believe in caging the queen during a heavy honey-flow, unless it should be a gradual flow. If our colonies are strong, by caging the queen we stop the production of bees, and turn the whole force to the production of honey, and no time is taken up in rearing young bees, and no honey is wasted in the nourishment of them, which is an item worthy our consideration.

J. S. Robinson, of Greenville—I believe in taking the honey from the upper story exclusively.

C. M. Davis, of Denison—My plan is to remove the queen at the onset of the honey-flow, and immediately after it closes, release the queen and give her room by extracting all the honey.

Dr. W. K. Marshall, of Marshall—I produce mostly comb honey. My plan of getting bees into boxes is to take a table fork and scratch the combs containing honey; in order to repair this damage, all the honey must be removed, and to make room for it, it will be carried above and deposited in the sections. This plan I use when I have toward the end of the season a lot of partially filled sections, and have never failed to have my sections nicely finished, so that carrying over half-filled sections to another season is entirely obviated, besides getting all of my sections in a marketable condition. I utilize all of the surplus honey in the brood-chamber. As to the most practical method of obtaining the most honey—while I do not altogether fancy the idea of destroying the little busy workers that have spent their lives in industrious honey-gathering—my plan would be to kill the queen at the commencement of the honey-flow, and at the close kill the bees. By this method I save the honey consumed in feeding

young bees that would be ready for field labor after the honey harvest was over; and when we consider that the 20,000 or 30,000 bees in a working colony must each be given a drop of honey on hatching, and consume each day several drops, we realize the enormous expense of producing bees during a heavy honey-flow; and we should have no more conscientious scruples in killing them, than in killing a fatted pig.

(Continued next week.)

Hive-Making by Hand.

When I was studying for a couple of years, and trying to decide what hive to adopt, I decided upon one thing, and that was that I never would invent a bee-hive. Then I got to where I must either make a hive or wait, and I didn't want to wait. Of course I had the "A B C of Bee-Culture," and could read what it said, but such things as dummies, T supers and bee-spaces, were like Greek letters to me—I had to learn what they were, and what they meant.

It took me half a day to make the first frame, and then it was not quite right. I am now making a hive of the dovetailed pattern and dimensions, with all dovetails left off from the bodies and frames. If I mention just three points, my method, I think, will be plain to all:

1st. Making the body of half-inch boards, and using two thicknesses for the ends, the inside end-board forms the rabbet without cutting a rabbet, and the sides nail on to it. The outside end-boards nail on to the ends of the sides, thus forming a double box, lap-joint, cross-nailed.

2nd. Top-bar and bottom-bar of frames nail inside of the end-bars, and by cutting the end-bars Hoffman style, they can be hung on a wire-nail driven into the top-bar, instead of leaving the top-bar projecting; this makes the sawing of frame stuff all square.

3rd. The square-cut sawing-box with one end, and the saw-kerfs properly arranged, enables me to saw everything square and true, and of the right length, without measuring, after the material has been worked out the proper width and thickness.

Don't think for one moment that I recommend making hives by hand, except for spare hours, rainy days, or when a beginner has nothing else to do, and wants to keep learning. Make every part entirely interchangeable, and

all standard dimensions, so that when you need factory-made hives to keep up with your increase, all will work together.

E. B. WHIPPLE.

Grasmere, Fla.



Locating an Apiary on the Side of a Mountain.

Query 871.—1. Would it be advisable to locate an apiary on the east side of a mountain, where it would be shaded after 3 p.m. in the summer, with an east and south exposure? 2. Would it have any influence regarding the bees working late in the day?—Oreg.

I should not think so.—MRS. L. HARRISON.

You can judge much better than one 3,000 miles away.—R. L. TAYLOR.

I don't think it would make much difference, if other things are the same.—J. P. H. BROWN.

In my locality it would be all right—just the place I should want, for several good reasons.—H. D. CUTTING.

1. I would risk such a location every time, if it afforded plenty of bee-forage. 2. I think not.—G. W. DEMAREE.

1. It might be, if no better could be had. 2. On some days, at least, they'd knock off work earlier.—C. C. MILLER.

1. I should consider that a first-class location. 2. I do not think it would make any serious difference.—C. H. DIBERN.

1. I would put them there if it suited my convenience. 2. I don't think it would, if they had good pasture.—E. FRANCE.

1. Yes, if a due south exposure cannot be had. 2. Yes, they will stop flying earlier in the day, but will also begin earlier.—DADANT & SON.

1. I think that would be a good location. 2. If they lost any time in the evening, would they not make it up in the morning?—EUGENE SECOR.

This is owing to temperature, conditions, etc. In this climate (Southwestern Illinois), southeast and south slopes are preferable.—J. M. HAMBAUGH.

I should suppose it would depend upon the temperature. The shade might be a benefit. It all depends upon the temperature of the place.—A. J. COOK.

1. That ought to be a good location. 2. Bees work with us as long as it is light enough to see the flowers—if there is honey in them to gather.—G. L. TINKER.

1. I cannot say. 2. I would think it would, as the mountainous countries have cool nights, and the sun would be needed to the latest hour possible.—JAS. A. STONE.

I think any *real* advantage or disadvantage of such a location would not be noticeable after a term of years trial, between such and an ordinary location.—G. M. DOOLITTLE.

As to location, I prefer such; but the shade might retard afternoon work to a perceptible amount. I, however, would not hesitate, as this is simply theory.—WILL M. BARNUM.

1. No, not if you can get a better location. 2. Bees would not work as well late in the afternoon, but the principal loss would be in breeding up in the spring.—P. H. ELWOOD.

1. If an apiary must be located on any side of a mountain, the east and south sides are to be preferred. 2. Its influence except in cool weather would be very small.—M. MAHIN.

1. If in a good locality, I think it would if not too high. 2. Probably they would not work quite as long, yet I doubt if there would be any appreciable difference found.—J. E. POND.

1. I know nothing about mountains. 2. I should think that it might often shorten the day's work, but that end of the day is not often of much value for honey-gathering.—JAMES A. GREEN.

1. That depends upon where the mountain is. It might be an advantage to have the bees shaded during that part of the day, but I very much doubt it. 2. I should think it would.—A. B. MASON.

1. Such a location is better than one shaded in the morning. 2. Somewhat, but it has some advantages—gets the bees home out of the damp, night air where they might catch cold.—J. H. LARRABEE.

1. I think it would be all right to locate an apiary on the east side of a

mountain. 2. When bees are gathering honey, it is usually warm weather, and it would not make any difference if it were cloudy all day. It might make a little difference early in the spring, or late in the fall.—MRS. JENNIE ATCHLEY.

1. I do not think this would be a very bad location. 2. If the weather was clear and warm, I do not think it would make much difference about the lateness of their working. If cold and cloudy it might.—EMERSON T. ABBOTT.

1. If you can give them no other location, it would have to do. 2. It would shorten the day's work from 2 to 3 hours, which is a big item, but I had rather lose 3 hours in the afternoon than one in the morning.—MRS. J. N. HEATER.

1. I should prefer a location where the sun would shine later than 3 p.m. Still, if you could secure desirable pasturage in such a location, not to be obtained elsewhere, it might pay you to locate there. 2. I think it would, especially in damp and cool weather.—S. I. FREEBORN.

The Washington Convention Report is now in pamphlet form, and we shall be pleased to mail a copy to any one desiring it, for 25 cents. It contains 32 pages. As only a very limited number were printed, you should order promptly if you want a copy.

Bee-Keeping for Profit.—The second edition of Dr. Tinker's new book is now ready to send out. It gives his New Management complete, and three years of added experience in its use by himself and other bee-keepers. Several new illustrations have been added, besides much new matter in regard to the use of perforated zinc. Price, 25 cents, postpaid, or clubbed with the BEE JOURNAL for one year for \$1.15.

The World's Fair Women "Souvenir" is the daintiest and prettiest book issued in connection with the World's Fair. It is by Josephine D. Hill—a noted society lady of the West—and contains superb full-page portraits and sketches of 31 of the World's Fair women and wives of prominent officials connected with the great Fair. It is printed on enameled paper, with half-tone engravings, bound in leatherette. We will send it postpaid for 75 cents, or give it for two new subscribers to the BEE JOURNAL at \$1.00 each.



Report of the Indiana State Bee-Keepers' Convention.

Written for the American Bee Journal

BY WALTER S. POWDER.

(Continued from page 594.)

SECOND DAY—MORNING SESSION.

PRES. RUSSELL—We will now listen to an essay by Dr. J. M. Hicks, of Indianapolis, on the subject of

Relation of Bees to Horticulture.

I believe that a very important question has been put into very poor hands for discussion. The subject is one, at least, that I am unequal to present in the light that I would like to, but if you will bear with me in my imperfections, I will do the best I can.

The relation bees hold in the proper and successful management of horticulture has never been very well understood in this country, except by a few of the most successful fruit-growers. Yet, nevertheless, there is a natural law that governs and controls those fixed principles in the economy of nature; in the proper fertilization of fruits, both large and small, in order to carry out her plans that all may be equally benefited, both rich and poor alike. How beautifully we see and realize the fact that bees are the sure messengers in assisting horticulture and the horticulturist in reaping and gathering a bountiful crop of fruits, as well as many of the various grains and seeds of the land. The intimate connection of bees with Nature's elegancies—flowers—is an association which links them agreeably to our regard, for each suggests the other, the vivacity and animation and music giving variety to that which might otherwise pall by beautiful but inanimate attractions. When combined with this the services bees perform in their eager pursuits, our admiration extends beyond them to their great Originator, who, by such apparently small means, accomplished so simply, yet so completely, a most important object of creation.

That bees were kept and cultivated by man in the earliest conditions of his existence, possibly whilst his yet limited family was still occupying the primitive cradle of the race at Hindoo Koosh, or on the fertile slopes of the Himalayas, or upon the more distant table-land or plateau of Thibet, or in the more verdant valleys of Cashmere, or wherever it might have been, somewhere widely away from the Caspian sea in an eastern direction, it is a very probable supposition. Thence ensues the fair deduction that phanerogamous, or flower-bearing, plants existed, and bees consequently necessarily too; thus participating in reciprocal advantages, they receiving from the plants sustenance, and at the same time giving them fertility. Both to the horticulturist and to the florist is seen their valuable assistance in procuring remunerative returns.

Thus we see that the Great Architect of the Universe has given to man the bees as a valuable co-worker in perfecting his wonderful designs in Nature, which are for the good of all concerned. It is also equally true that if it were not for the valuable aid that the bees and some other insects perform in fertilizing many of the blooms of fruit-trees and garden plants, we should soon be found wanting in a proper supply of fruit and seeds, in carrying on the laudable business of horticulture, as well as fall in having seeds of a good quality at planting time.

Then let me ask, would it not be good policy for all who wish to succeed in the one to also at least provide a few colonies of bees to aid in carrying on the other? I have no long-spun theories to offer as to the necessity of all who can do so to keep a few colonies of bees; but it is a well-known fact that many of our vegetables, such as cucumbers, tomatoes, and other garden products are greatly aided by the work of the bees in visiting each blooming plant, which is sure to exchange pollen from one to another, and thus aiding the tiller of the soil as God's grand work in maturing and furnishing a bountiful crop to the husbandman as well as much aid to the horticulturist.

I trust that I have at least mentioned a few points that may be of some interest to those of our bee-keepers who may wish in the future to manage bees in connection with horticulture, for herein lies a grand truth that the two are directly and intimately connected with and depend largely upon each other.

DR. J. M. HICKS.

Pres. Russell—You have heard the essay by Dr. Hicks, which is certainly one of great importance, and a subject on which all of us perhaps are not very well posted. Remarks are now in order.

Dr. Hicks—I would like to say a few words more, and that is, that last year, in my vicinity right east of the city about two miles, there is a gentleman who is largely engaged in growing cucumbers, as well as many other vegetables for the market here. He had not been successful in getting the proper amount of fruiting; that is, to have the cucumbers stick to the vines until of proper maturity and proper size, until I moved there. I had with me a few colonies of bees, as it is always my custom to keep a few bees, and after awhile this gentleman told me that he had never raised cucumbers so well until I came. "I find that the bees are instrumental in fertilizing the bloom of the cucumbers, and that they bear over a half more than they used to," he added. I, myself, have always found that plants and vegetables that are raised in abundance do better where there are bees, and I am well satisfied that they and a good many other little insects that we think very insignificant, are God's chosen instruments through which man is greatly benefited, many times, when he little thinks how it comes about. His interests are advanced, and he is often blessed in many ways through the instrumentality of these little insects.

BEES DON'T INJURE GRAPES.

Mr. Pope—I have heard some people say that the bees puncture grapes and destroy them. I want to say that there is not a bit of truth in that. Some other insect, or perhaps the action of the weather, may destroy the grape, and then the bees will suck the sugar, but I know it is impossible for the bees to puncture grapes.

Mr. Raab—I have a neighbor who is a farmer, and several times I have tried to convince him that the bees do not scratch a grape. I have told him that they will suck the sugar after it is punctured some other way, and that I knew this to be true, for I had both grapes and bees, and they were never injured at all by the bees.

Mr. Simmons—I believe also what has been said, that it is impossible for the grapes to be punctured by the bees. I made a microscopic examination, and found from their construction that it is impossible for them to do so.

Mr. Catterson—If you are not already satisfied on this point, my friends, just

take a healthy bunch of grapes and put them into the brood-chamber. The bees will keep it warm all winter, and at the end of the cold weather, it will be almost as good as when you put it there. I am satisfied in my own mind that the grapes can be kept at the same temperature as the bees.

Mr. Muth—I know that there are dealers in Cincinnati who have tried to create the impression that bees poison grapes; but we know that this is not so, for as we have said before, it is impossible for bees to puncture grapes, and it is of great importance that we should not deceive these grape dealers. Again, I know a friend who has in his yard some 70 or 80 colonies of bees, and he claims that since he put them there, his grapes have been better than ever before, and he attributes this to the fact of his having the bees in his vineyard.

Mr. Pope—If we can only get these facts known among the farmers of Indiana, that their bees are their friends and not their enemies, it will be of the greatest benefit.

Dr. Hicks—In addition to what I have already said on behalf of the honey-bees being the friend of man, I will also state that about three years ago I sent out 150 loads of grapes, while my neighbors got no grapes at all. I also attributed this to having my bees in my vineyard, and fertilizing the bloom of the grape at the proper time. I let my grapes remain until quite late in the fall, and then finally gathered them, made one-half a barrel of wine, and had all we needed for our personal use. I think had it not been for the bees, we should have had no grapes at all.

Pres. Russell—I believe that in undertaking horticulture for the benefit of the bees, that the bee-keepers have found it to be the main feature of bee-culture.

Mr. Pope—I want to draw up a resolution that the bees do not injure the grapes, and if possible, establish this fact among the bee-keepers and farmers.

At the suggestion of Mr. Pope, the following was presented and adopted:

Resolved, That it is the sense of the Indiana bee-keepers that it is an impossibility for bees to puncture grapes or injure them.

Pres. Russell—The last essay on our programme is one by Mrs. Rebecca H. Herr, entitled,

How to Manage Swarms.

This properly includes from spring to fall, leaving them in good condition for winter. There are more ways than one, some shiftless and careless, others or-

derly and careful. The first includes all those who keep their bees in old rotten boxes, or cuts of hollow trees, with cross-sticks in them. Sometimes all shapes and sizes of boxes are used, and put in the weeds, and sheltered by nothing better than a wire fence.

Beginning with a well-regulated family or colony, about the first of June where there are uniform boxes in size and shape, with movable frames, when a swarm leaves the parent colony, we get them to settle on a tree or bush as soon as possible by throwing water among them, and the ringing of bells, and the usual uproar that women and children can make. When they are well settled with water, we prepare a hive for them, putting in two or three frames of empty combs, and some with starters so that they will deposit the honey they have carried with them, or if you want them to store honey in the sections, I would put in fewer frames in the brood-chamber, and put on sections at first that are partly filled with honey, taking them from the parent colony if I had them. A good early swarm in a good honey season will store surplus honey.

When the brood-chamber is contracted too much in June and July, and the honey taken away too closely, you will have to give more room in the brood-chamber in August for honey and brood. If the fall is favorable to honey-gathering, the colony will store enough to winter on, but if the fall is not favorable the colony must be fed. See that there is a good queen and plenty of bees and stores, and there will then be a good prospect for profit the next season.

MRS. REBECCA H. HERR.

The above essay was read by the Secretary, in the absence of Mrs. Herr.

Mr. Muth—We shall need some one at the World's Fair to take charge of the bee-department there, and I recommend Dr. A. B. Mason, of Auburndale, O., in this capacity. We could not find a better man. I make a motion that this gentleman be appointed as General Superintendent of the bee-department at the World's Columbian Exposition this year. Carried.

A motion was made by Mr. Pouder that the report of the bee-keepers' convention be sent to the AMERICAN BEE JOURNAL for publication, and then returned to the Secretary of the State Board of Agriculture. Carried.

The convention then adjourned until the afternoon, for the election of officers.

SECOND DAY—AFTERNOON SESSION.

The Association was called to order at 1:30 p.m., by President Russell, for the election of officers, which resulted as follows:

President—R. S. Russell

Vice-Presidents—John Manford, Mr. Pope, and A. J. Simmons.

Treasurer—Walter S. Pouder.

Secretary—Geo. P. Wilson.

After kindly wishing all success the coming year, the Association adjourned *sine die*.

A complete exhibit of bee-keepers' supplies was made by Mr. Walter S. Pouder and others, which attracted much favorable comment.



Hard Winter, Bee-Paralysis, Poisonous Honey, Etc.

Written for the American Bee Journal
BY G. W. DEMAREE.

I have long been aware of the fact that in this climate bees can survive a severe shock of cold with no other protection than the ordinary hive gives them, provided the cold does not continue more than two or three days at a time. I had a hive robbed of its honey-boxes several winters ago, leaving the top-bars of the frames uncovered, except the hive cover which rested on the upper story, 10 inches above the top of the brood-frames. While in the unprotected condition the bees survived a shock of 20° below zero—the coldest morning I ever experienced. The cold lasted but a few days, and when their unprotected condition was discovered they were dry, lively, and in good health.

The cold spell of this winter, which broke up about Jan. 25th, was the longest continuous cold-snap of which I have any memory since I have been keeping bees. As my apiary was caught just as I left it when the last surplus was removed—which was precious little

—I gave the bees up as lost; but, to my surprise, they came through the ordeal unscathed. A large number of colonies in my yard are in hives that have 20 Langstroth frames, and these are as safe and lively as the rest. I have often observed that my bees winter best in roomy hives.

During the extremely cold weather here the ground was protected with from 6 to 10 inches of snow, and all bee-forage is in safe condition, as the weather has been moderate since the snow melted away. The prospects are fairly good for the 1893 honey crop.

BEE-PARALYSIS—IS IT A DISEASE?

I think not. My attention was called to this trouble with bees, in the latter part of the summer of 1883. Since that time I have watched its course and progress, and I am satisfied it is not a disease, but is caused by a vegetable (nectar) poison. I have never seen its effect at any time when bees were gathering nectar from the staple honey-plants.

I have seen no signs of the so-called disease at any other time than in the early spring and in the late summer. At these times bees may gather both nectar and pollen of such doubtful wholesomeness, that they would not touch it when the locust, white clover and linden are supplying their wants. The simple fact that the trouble occurs only at such periods of the season makes it look very suspicious that vegetable poison is at the bottom of the trouble. Nectar in flowers, secreted in hot, dry weather, is more than usually concentrated and strong, by reason of rapid evaporation, and when poisonous weeds tempt the bees at such times, it is not at all strange that they may find "death in the pot." It is no uncommon thing to find bees in a state of *stupor* on certain wild flowers, no doubt the result of nectar poison.

If I am correct in my views, the practical way to deal with the trouble is to feed sweetened water, as much as the affected colony will take. This will allure the bees from the source of danger, and help to dilute the unwholesome nectar, and make it less dangerous to the bees.

I have spent considerable time among wild flowers and the working bees in the early spring and late summer and fall, and I have found no inconsiderable number of bees on the wild flowers in a state of *stupor*, as if under the influence of an opiate. I have often picked up the opium-affected bees, placed them on my hand, and observed the well-described

paralytic symptoms. Nothing of this sort has ever attracted my attention when bees were at work on the clovers and other standard flowers.

I once thought that the time of year had something to do with the manner in which bees fall like leaden bullets in front of the hives in spring, late summer and fall, both in warm as well as in cool weather; but I do not think so now. Since I have never seen anything like it when the bees were working under the greatest strain, in warm as well as in cool weather, in a time of a rapid flow in white clover harvest, I think it most probable that soporiferous nectar being handled by them causes them to tumble so clumsily.

IS THERE POISONOUS NECTAR?

The question is often asked if some plants and trees do not yield poisonous nectar. I think it is safe to say that none do habitually. But I am quite sure that certain conditions of weather, plant health, or some unknown causes, do often affect more or less the nectar of some plants and trees.

Honey is not a simple sugar, in fact, or *inverted*. Nectar is a secretion from the crude juices of plants, highly refined, and often nearly, if not fully, evaporated, and sugar *inverted* by normal fermentation, before it is gathered by the bees. In view of these facts, and what we know about animal and vegetable circulation, it is not difficult to see how that sometimes irregularities may be induced, which may and do, under certain circumstances, divert unwholesome qualities of the crude juices into the flow of nectar. But these causes have always existed, and I have no fears that they will be worse.

Christiansburg, Ky.

Description of the Langdon Non-Swarming Device.

Written for "Insect Life," Vol. V., No. 4,

BY FRANK BENTON.

Complete control of natural swarming has long been regarded by apiarists as one of the most desirable points to accomplish in connection with their pursuit. Yet, up to the present time, notwithstanding the improvements which modern ideas in apiculture have suggested in this direction, they have had to admit it one of the most puzzling with which they have had to do.

The advantages in being able to sup-

press at will and without detriment to the colony the desire on the part of the bees to swarm are numerous. Chief among these may be mentioned: There need not then be the great interruption to honey-storing which the issuance of swarms brings in the height of the honey yield. The apiarist could have all his return in the shape of honey instead of partly in the form of swarms, clearly an advantage when the number of his colonies had reached the limit of his field, or as many as he could well care for, and remunerative prices could not be obtained for the surplus stock. The time and labor expended in watching for and hiving swarms would be saved. Losses through the absconding of swarms would be avoided. Even with all reasonable care such losses often occur.

Centuries ago the Greeks recognizing some of the advantages which the control of swarming would give to the bee-keeper, practiced with their basket-hives furnished with bars across the tops, the transfer of combs with adhering bees to new hives, thus forming artificial swarms. This is interesting to note as being the first recorded attempt to control swarming. Contardi, who wrote in 1768, describes these hives, and says: "When the bees should swarm, those people do nothing but to take out some of these bars to which the bees attach their combs, and they place them upon another basket or hive. It is in this manner that the Greeks multiply their hives." The abbot, Della Rocca, of Syria, in the Grecian archipelago, in his *Traite complet sur les Abeilles*, published at Paris in 1790, mentions this as "a method of the ancient Greeks for the multiplication of swarms, which is employed to-day by the inhabitants of the Island of Candia." And Liger, the author of *La Maison rustique*, in the eighth edition published in 1742, gives a figure of one of these basket hives.

Most of the systems of preventing or limiting natural swarming have depended upon the formation of a limited number of artificial swarms, frequent destruction of queen-cells by the bee-keeper, close use of the honey-extractor, the combining of after-swarms, changing places for hives, replacing of all queens annually, supplying empty space for comb-building below the brood-nest or between the brood-nest and flight-hole, or there has been some combination of these methods.

From time to time queens have been advertised as bred from "non-swarming strains of bees." While it is very rea-

sonable to suppose that the inclination to swarm might be decreased considerably by long-continued, careful selection, such as would be given had we better control over mating, it is safe to say that comparatively slight permanent results have thus far been attained in this direction. And since swarms would issue, various devices have been constructed to warn the owner, or to prevent loss during his absence. Electric attachments and telephone lines have been put up, adjusted entrances to confine queens, traps to catch the latter, and decoy-hives have been used, and at last the automatic or self-hiver has been evolved after many experiments and much thought on the part of apiarian inventors. Although the self-hiver in its more perfected form has scarcely been subjected to a thorough test, it promises to do all that has been expected of it. But it will not

TAKE AWAY THE DESIRE TO SWARM.

This is exactly what Mr. H. P. Langdon, of East Constable, N. Y., says he can do by the use of the non-swarming attachment invented by him, and now for the first time made public. Moreover, he keeps all of the field force of his colonies storing surplus honey under the most favorable conditions as long as there is any honey to be obtained in field or forest, and simplifies to such an extent the work of the apiary during this portion of the year that he can attend to several times as many colonies as under the old way.

The immediate condition which incites a colony of bees to swarm has been quite well recognized as its general prosperity—its populousness, the abundance of honey secretion, and crowded condition of the brood-combs, or, in general, such circumstances as favor the production of surplus honey, especially surplus comb honey, and it has of course been taken for granted that honey could not be secured if these conditions were changed. Nor would it, without any knowledge of the system proposed by Mr. Langdon, be easy for experienced bee-keepers to believe that all it proposes to do could be accomplished without much manipulation, and perhaps also the use of some complicated device.

I was, however, agreeably surprised at the whole simplicity of Mr. Langdon's plan, when, in December last, he made it known to me, and sent a non-swarm for purposes of illustration; and in answer to his request as to what I thought of it, I wrote him at once that I was of the opinion that he had made one of the

most valuable additions to the list of apiarian inventions that had appeared for a long time—one that, after the frame hive, would rank equal with or ahead of the honey-extractor and comb-foundation machine.

Mr. Langdon has applied for letters patent on his device in this and other countries, and with the specifications as a basis, a copy of which he has kindly sent to me, together with permission to make the matter public, I have written the following

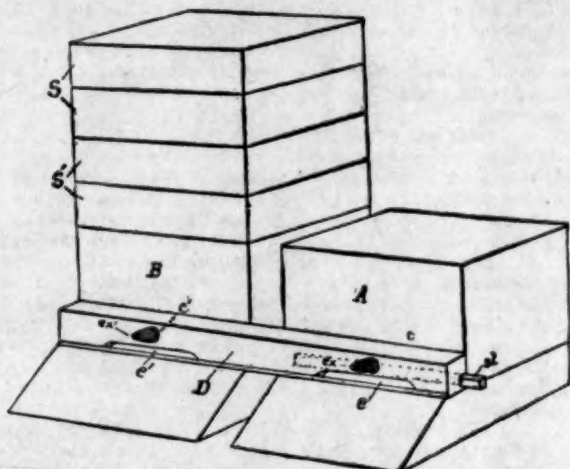
DESCRIPTION OF THE DEVICE AND SYSTEM.

At the beginning of the honey season the non-swarming device, D, shown in

front of the hive. The super cases S of hive A are then placed on those of hive B.

The flight-bees of hive A finding their hive-entrance closed on their return are, upon alighting at the entrance *e*, attracted along the gallery by the buzzing of the bees at the entrance *e'*, of hive B, and enter said hive. This withdrawal of the field-bees from hive A leaves this hive so depopulated, and so disconcerts the nurse-bees left therein that they will not swarm; meanwhile work is going on without interruption in the supers on hive B by the field force of both hives.

At the expiration of eight to ten days, thus before the bees of hive B have



Bee-hives with Langdon Non-Swarmer attached. A, B, hives; S, S', supers; D, non-swarming device; e, e', entrances corresponding to hive-entrances; sl, slide for closing entrance; c, c', conical wire-cloth bee-escapes; ex, ex', exits of same.

the diagram, is placed at the entrances of contiguous hives, each of which contains a queen and a full colony of bees. The continuous passage-ways, *c* and *c'*, on the underside of the device, correspond to the entrances of the hives A and B, respectively. The bees will then pass, quite undisturbed, out of and into their respective hives through these passage-ways. By inserting the slide, *sl*, in the end of the non-swarmers until it occupies the position indicated by the dotted horizontal lines the passage-way leading to hive A will be closed at its juncture with the hive-entrance, preventing any bees from entering said hive. The wire-cloth cone exit, *ex*, still permits flight-bees to come out of hive A, as a hole through the non-swarmers connects the cone exit with a corresponding hole in

made preparations to swarm, the supers S and S' on this hive are all transferred to hive A, the slide, *sl*, is withdrawn from entrance *e*, thus opening this hive, and is inserted in the opposite end of the non-swarming device, so as to close the entrance, *e'*, to hive B. The bees thus excluded from hive B will be called along the gallery of the non-swarmers by the bees at the entrance, *e*, and with these bees will enter hive A, thus bringing about in hive B the same conditions as were previously induced in hive A by closing the latter. At the same time the field-bees of both hives were working continuously in the supers on the hive A, the entrance of which is open, and the flight-bees in hive B are escaping through the cone exit, *ex'*, and joining those of hive A.

In about a week the supers are again placed upon hive B, the entrance to which is then opened, while that of hive A is closed. In another week another transfer is made, and so on alternately during the flow of honey.

This alternate running of the field-bees from one hive to another, and back again, and the simultaneous transfer of the supers, so disturbs the plans of the nurse-bees, and temporarily depopulates the hives successively closed, that organization for swarming is not effected, hence, *no swarms issue, and the field-bees of both hives work unitedly, and without interruption throughout the entire gathering season.*

ADVANTAGES OF THIS SYSTEM.

The experienced bee-master will not only readily see that this meets the requirements mentioned in the first part of this article as advantageous to secure, but also that in many other ways it is likely to prove a system of great value in the apiary. Mr. Langdon has mentioned some of these, and I will therefore quote from his letter:

1. Two light colonies that would not do much in sections if working separately, make one good one by running the field force of both into the same set of supers.
2. No bait sections are needed, as the bees can be crowded into the sections without swarming.
3. The honey will be finished in better condition, that is, with less travel-stain, because the union of the field forces enables them to complete the work in less time.
4. There will be fewer unfinished sections at the close of the honey harvest, for the reason just mentioned.
5. Also for the same reason honey can be taken off by the full case instead of by the section or holder full.
6. Drones will be fewer in number, as a double handful will of often be killed off in the closed hive while the other is storing honey rapidly.
7. Artificial swarms and nuclei can be more easily made, as combs of brood and bees can be taken from the closed hive in which the queen can be found very quickly.

As there is in carrying out this system of swarm prevention no caging of queens, cutting out of queen-cells, manipulation of brood-combs, or even opening of the brood-chambers at all during the honey season, and all the vexatious watching for swarms, and the labor and time involved in securing these are done away with, and instead of this a simple manipulation attended to not oftener than once a week is substituted, it is plain that very many more colonies can be managed by one person, and, indeed, Mr. Langdon informs me that he

"can care for 200 colonies with one day's work in a week with no help, instead of working all the time with 100 colonies." It will, therefore, prove a great boon to all having numerous out-apiaries.

One of the greatest advantages over any plan for the prevention of swarming yet proposed, which Mr. Langdon's system will have, should it prove on further trial all that it now promises, is that it will not only prevent more effectually than any other the actual issuance of swarms, but, while not requiring any manipulation antagonistic to the known instincts of bees, it will prevent all desire to swarm—will completely do away with the "swarming fever," so fatal to the hopes of the comb-honey producer.

Another great feature of it will be the more rigid selection of breeding stock, which it will facilitate. Intelligent selection can accomplish for this pursuit as much as it has done for the breeders of our larger domestic animals. Furthermore, a strong natural inclination toward swarming on the part of any race of bees, otherwise possessed of very desirable traits, will not, under this system, oblige the rejection of such race. Eventually the disposition to swarm must through constant suppression become less, or, in time it may even disappear, giving us the long-sought non-swarming strain.

THE SYSTEM TESTED PRACTICALLY.

A brief statement of the success which has attended Mr. Langdon's practical test of his system during 1892 will be of interest in this connection. In a letter dated Dec. 24, 1892, he wrote:

Last season I tried the device on 100 hives. Except in one instance the bees did no fighting. Why they do not fight when united in this way I cannot say. It certainly did not discourage them in honey gathering, for my yield from the 100 hives was 6,000 pounds of comb honey, or an average of 60 pounds per hive, some pairs yielding 150 pounds, and it has been counted a poor season for bees in my locality this year. After one season's trial of the device and plan, I do not know of a single fault or objection to it.

Capons and Caponizing, by Edward Warren Sawyer, M. D., Fanny Field, and others. It shows in clear language and illustrations all about caponizing fowls; and thus how to make the most money in poultry-raising. Every poultry-keeper should have it. Price, postpaid, 30 cents; or clubbed with BEE JOURNAL one year, for \$1.10

Teachers in Bee-Keeping, Fall Re-Queening, Etc.

Written for the American Bee Journal

BY DR. ALBERT SAYLER.

"Our School in Bee-Keeping" in the Sunny Southland department of the BEE JOURNAL, conducted by the energetic and intelligent Mrs. Atchley, will, in many ways, be a help in the future to thousands of bee-keepers who have been blundering along in Egyptian darkness with "fogy" box-hives, on the principle of, "It's so. 'Paw' says it's so. It's so because 'Paw' says it's so; and if 'Paw' says it's so, it's so whether it's so or not so." The "king bee, how long is he?" and all "sich like," *ad nauseum*.

Like Mr. Doolittle, Mrs. Atchley is building better than she knows. Both are superb school-teachers—vigorous in style of expression, clear and concise. When Mrs. A. sets out to explain an operation with the bees, she indulges in no apostrophes, parenthetical remarks or side-issues. On this account the tyro can always understand her. In fact, he cannot *but* understand her. I wish that Mr. Alley would at all times in his publications on Queen-Rearing, show these qualities. He generally does, but when he fails to do so, it is almost certain to be at a point fatal to his pupils.

The quality, or faculty—which is it?—of perspicuity in all composition is the most important one. Let a writer possess all the other requisites in however eminent degree, if he fails in this, he fails in all. Such writers should study Shakespeare, Hugo and Byron.

RE-QUEENING COLONIES IN THE FALL.

On page 269, Mrs. Atchley writes as follows:

"At the close of the season, and yet before cold weather begins, if we have been successful and secured a fair honey crop, we may sell a portion of the honey, and buy two pure Italian queens from some reliable breeder, and have our bees Italianized ready for winter, and to start next spring with none but the best bees, etc."

Now on pages 40 and 41, of the *American Apiculturist* for March, the Edison of Queen-Breeders in the article on his latest and best method of queen-rearing, refers to many of his *past* methods as follows:

"Those methods necessitated a good deal of work, and late in the season the loss or great damage to the colony made queenless; in fact, about every colony

that was meddled with after Aug. 10th, was pretty sure to die before spring; as the very act of depriving a colony of its queen at that season of the year when the bees should not be molested in any way—certainly not deprived of their queen—is sure to result in disaster.

"It is in the month of August that the foundation is begun for the successful wintering of the colony; and de-queening a colony at the time brood-rearing should be progressing prosperously, is a serious disadvantage to it."

Now "When doctors differ," etc., is a poor consolation to "Greeny." When two of our great lights in bee-lore so pointedly and radically differ on a matter of such general and sweeping significance, to attempt to harmonize or explain away the matter on the ground of "difference of latitude and climate," will be altogether too namby-pamby, daffy-downdilly—too too-too. "I guess" we'll have to call on the "inimitable Hasty," Doolittle, Hutchinson, R. L. Taylor, B. Taylor, Manum, Tinker, Green, the ever genial and scholarly Dr. C. C. Miller, Demaree, Larrabee, and—the Honey-Bee, to rise and explain in ways not dark or peculiar.

FICKLE AND CAPRICIOUS MARCH.

On Friday, March 3rd, bees here were, carrying in pollen by wholesale; and so earnestly had they become engaged at this, that they kept it up on the following day until afternoon, when the weather was "catching cold," and nearly freezing. They hated to give it up—this gathering the first fruit of the year.

Cold, and the ground covered with snow on Saturday; and yesterday, Sunday, March 5th, and to-day warm again. Thus it is that fickle and capricious March marches in in this latitude—latitude of Cincinnati; like alternate sunshine and shadow playing over a waving meadow.

FLARING-TOP COMB-BASKETS.

All beginners in bee-keeping should join in giving a vote of thanks to Mr. Jas. R. Bellamy, of Black Bank, Ont., for his superb reply to Query 854. Mr. B., on page 246, certainly explains this "flaring comb-basket" idea, in regard to extractors, more fully and clearly than any or all of the experts did under the original question. This answer in question gives a "tip" to beginners when they buy an extractor; and bee-editors are here to guide us in the straight and economic way.

I would recommend that genius and

startling innovator and iconoclast, Mr. Heddon, to carefully read Mr. Bellamy's reply; then retract his own reply to Query 854; and finally, graciously and gracefully tip his hat to our neighborly expert, or possibly "apicultural literarian," residing just over the geographic rubricated line.

New Palestine, Ohio.



Do not write anything for publication on the same sheet of paper with business matters, unless it can be torn apart without interfering with either part of the letter.

Strong Colonies this Spring.

Bees wintered finely here this winter, and were stronger this spring when put out of the cellar than when put in; but this is a bad spell on them, the mercury being at the freezing point, and it has been blowing snow all day.

THOMAS S. WALLACE.

Clayton, Ills., April 21, 1893.

Only 5 Per Cent. Loss.

My bees have wintered pretty well, only 5 per cent. loss. They were packed in leaves on the summer stands, and were five months without a flight, and have not gathered any pollen yet. I appreciate the efforts to improve the BEE JOURNAL, and think it splendid.

IRVIN GROVER.

Cooperstown, N. Y., April 22, 1893.

One of the Worst Winters.

We have had one of the worst winters that we have ever had, and the bees are about all dead in Minnesota. I cannot give any reason for this great loss; it is not only the inexperienced that have lost, but the experienced or professional bee-keepers, the ones that knew just how to winter. It is quite interesting to meet one of these latter bee-keepers, and note how meek and lowly he seems when you ask him how his bees wintered.

As I receive letters from all parts of the West, stating the heavy loss in many apiaries, and in some instances where they had a large apiary, and it had become depopulated, I cannot help but call to memory all that has been said about the winter problem in the way of sealed covers, and

upper and lower ventilation, etc.; how we thought we had this great question down to a minimum, and Old Boreas has completely "done us up." There is one thing about the season, we have had lots of snow to protect the clover, and everything seems to indicate a good crop of honey.

WM. H. BRIGHT.

Mazeppa, Minn., April 20, 1893.

Extracting Honey in Arkansas.

My bees at the Arkansas apiary are doing very well; we having extracted, up to this time, from 46 colonies, 1,500 pounds of honey. Those that have been at Rosedale, in Mississippi, have done almost nothing yet; they are run for comb honey. I moved 43 colonies over here to run especially for comb honey. If they do not improve, I shall move them again, or take them back to Arkansas.

R. J. MATHEWS.

Rosedale, Miss., April 24, 1893.

Fertile Queens and Alley Traps.

On page 471 is a letter from Mr. Arthur Heiss, and, as it refers directly to my self-hiver, I feel at liberty to answer it.

Mr. Heiss is certainly mistaken about fertile queens taking a flight. Some years ago I used to have all my queens mated from large hives, and as soon as I found them laying I would put Alley traps on the entrances to prevent the bees from absconding. I have had as high as 75 colonies arranged in this manner through the entire season, and I never found a queen in the trap outside the hive. There are some 100,000 traps in use in this country, but there has never been any complaint that they caught fertile queens other than at swarming time.

The queens that Mr. H. speaks of must have been virgin. The one he speaks of "on top of the frames" was simply frightened, that is all. Young laying queens will often take wing from an opened hive.

Beverly, Mass.

E. L. PRATT.

Getting Bees from a High Tree.

In August, 1892, one of my neighbors ran a bee-line by my house and asked me to help find the tree; and after cutting it and taking out the honey, I hived the bees in a box for a few days. I then transferred them into a hive, and the next morning they were working as though nothing had happened. They were very gentle, and I think quite good Italians.

Of course, this (my first experience with bees) made me interested, so I started another line, and before night had them located in a large cucumber tree, not far from where I started them. The bees went into the tree about 90 feet from the ground, and it was 75 feet to the first limb. I knew if the limb was cut I should lose bees, honey and all. It was a very strong colony, and I was anxious to save the bees if possible,

but how to accomplish it was a question hard to answer.

The next morning I was up "bright and early." I got a small rope, long enough to reach over the limb, tied one end of the rope to an old ram-rod, loaded my shot-gun with powder, and started.

I shot several times, but it fell short of the mark. I then climbed a tree about 75 feet from the bee-tree, and succeeded in getting the small rope over, after which it was very little trouble to draw a larger one over and climb up. The bees went into the tree just below the fork, so I cut out a portion of the tree and lowered it to the ground. Everything was in splendid shape, and the bees had stored 100 pounds of honey.

I then subscribed for the AMERICAN BEE JOURNAL, and I give it the credit of bringing my bees through the winter O. K.

D. A. HOLEMAN.

Selkirk, Va., April 7, 1893.

Backward Season—Heavy Losses.

The season is backward. My bees were removed from the cellar on April 18th, and since that time they have been active only three or four days. The loss in winter, and up to date, is about 10 per cent. I have seen but little pollen brought in. There was much rain and snow during April, and vegetation is later in starting than usual. The loss of bees is quite heavy in this part of the State. They were wintered generally in cellars, but perhaps too cold ones in some cases.

EUGENE SECOR.

Forest City, Iowa, May 8, 1893.

Colonies Came Out Very Strong.

I started in the winter with 43 colonies. I found one queenless in November, and united it with another, so that left me 40. They have come through all right, and are the strongest this spring that they have been since I have kept bees. I have been in the business for nine years. Bees have been doing well for a month here. The ground is covered with snow this morning.

B. F. BEHELER.

Jumping Branch, W. Va., April 23, 1893.

Wintered Poorly—Black Bees.

My bees have wintered poorly, and some others have lost heavily, $\frac{3}{4}$ having died in some cases. I have lost 7 out of 23—6 Italian colonies and one black. All had plenty of nice honey, and were packed alike in good chaff hives. I think the black bees stand the winter best. The Italians stick to the comb best when handling, are not so cross, and are more inclined to early swarming, but not so hardy. I shall stick to the blacks until the Gulf Stream comes this way again.

It is a backward spring. It snowed two inches last night, and is still snowing. We have had but few warm days this spring. The colonies of bees are building up very slowly this spring. Why do bees die when packed nice and warm, with plenty of nice

honey, while others winter nicely in a salt barrel? I suppose Dr. Miller "don't know." A neighbor of mine had one in a barrel, and gave it to me. I transferred it on April 3rd. It was a nice and strong colony of black bees, and had stood exposed all winter.

CHARLES TAREY.

Houghton, N. Y., April 15, 1893.

New Honey-House—Fine Weather.

I have just finished a honey-house. It would do you good to see it. I will put it up for comparison with any other honey-house in Tennessee. Of course I will not bore you with a description of it, but it is a "daisy."

We are having fine spring weather, and bees are building up finely, but will have to "hoove it" to get ready for the honey-flow.

H. F. COLEMAN.

Sneedville, Tenn., April 8, 1893.

Granulated Sugar that Looked Queer.

I bought 150 pounds of granulated sugar, supposing it to be the best, and when I came to use it to feed to my bees, I found it was mixed with some sort of a mixture resembling indigo blue. I am afraid to use it, for my family or my bees, until I find out more about it. I think it would not be a bad idea to publish this in the BEE JOURNAL, so as to put all others on their guard, who have to use sugar for the same purpose that I do.

ANDREW GIRARD.

Linwood, Mich., April 25, 1893.

Extremely Backward Spring.

This has been an extremely backward spring, cold and windy nearly all of this month. Ice formed here last night. A part of my bees are still in winter quarters—no trouble in keeping them quiet this spring. Those removed came out in fair condition, and all alive. I hope we shall have some improvement this year, upon the past four poor seasons.

I have all of the volumes of the AMERICAN BEE JOURNAL, having purchased the first four, and have been a regular subscriber ever since.

W. D. WRIGHT.

Altamont, N. Y., April 28, 1893.

Bees Fared Badly—Chilled Brood.

Bees left on the summer stands, without protection, fared badly last winter; about $\frac{3}{4}$ of all that I have heard of are dead. I had 24 colonies in the cellar, and took them out on March 4th; they are all in good condition at present, and 2 colonies out of 5 wintered out-of-doors are dead. The weather is very unfavorable for bees at present; it is cold and rainy, and my bees bring out a good deal of chilled brood.

FRED BECHLY.

Searsboro, Iowa, April 30, 1893.

Read our great offer on page 618.

Honey & Beeswax Market Quotations.

The following Quotations are for Saturday, May 13th. 1893:

CHICAGO, ILLS.—Honey is about cleaned up so far as fine comb is concerned. Quite a good deal of poor to fair is on sale, prices ranging from 13 to 15c. Fancy would bring 18c. Extracted, 6@8c. Beeswax, 25c.

R. A. B. & Co.

KANSAS CITY, MO.—Receipts and stocks very light, demand good. We quote: No. 1 white 1-lbs. 16@17c.; No. 2, 14@15c.; No. 1 amber 1-lbs. 15c.; No. 2 amber, 10@12c. Extracted, white, 7@7½c.; amber, 5@6.

Beeswax—20@23c.

C-M. C. C.

CINCINNATI, O.—A short supply of extracted honey is the cause of a slow demand. It forbids an effort on our part to sell. It brings 6@8c. There is no choice comb honey on our market, and prices are nominal at 12@16c., in a small way.

Beeswax—Demand good, at 22@25c for good to choice yellow. Supply good. C. F. M. & S.

NEW YORK, N. Y.—Comb honey is well cleaned up. Fancy white is selling at 14@15c. Off grades, 12@13c., and buckwheat, 9@10c. Extracted is dull, and the market well stocked with West India honey, which sells at from 68@75c per gallon. Beeswax, 26@28c.

H. B. & S.

SAN FRANCISCO, CALIF.—Choice extracted is scarce at 7@7½c., and demand heavier than supply. Choice comb is not scarce at 10@12c., according to quality. 1-lbs. Beeswax is neglected at 22@23c.

S., L. & S.

KANSAS CITY, MO.—Demand good, supply very light. White 1-lbs., 16c. Extracted, 6@7c. No beeswax on the market.

H. & B.

CHICAGO, ILL.—Fancy stock is very scarce, with plenty of inquiry, with good prices offered for same. It sells readily at 18c.; No. 1 comb, 16@17c. Dark sells slow. White extracted, fair supply, with good demand at 8¼; dark, 6@7c. Beeswax—23@25c. J. A. L.

BOSTON, MASS.—Honey is selling slow and prices are lower. Best 1-lb. comb, 16@17c. Extracted, 8@10c.

Beeswax—None on hand

B. & R.

MINNESOTA, MINN.—Honey is in good demand, especially for fancy white clover. There is considerable of the low grade on the market. Extracted is also improving in prices. Beeswax in light demand. Fancy white clover, in 1 lb. sections, 18c.; choice white clover, 16c.; golden-rod, 1 lb. sections, 13@14; dark, 12@13c. Extracted, 9@10c.

J. A. S. & Co.

ALBANY, N. Y.—Honey market quiet at following prices: White comb, 14@15@16c.; mixed, 12@13c.; dark, 10@11c. Extracted, white, 8@8½c.; mixed, 7@7½c.; dark, 6¼@7c. Beeswax, 26@30c.

H. K. W.

Your Neighbor Bee-Keeper

—have you asked him or her to subscribe for the BEE JOURNAL? Only \$1.00 will pay for it for a whole year. And, besides, you can have Newman's book on "Bees and Honey" as a premium, for sending us two new subscribers. Don't neglect your neighbor! See page 611.

List of Honey and Beeswax Dealers,

Most of whom Quote in this Journal.

Chicago, Ills.

R. A. BURNETT & Co., 161 South Water Street.

New York, N. Y.

F. I. SAGE & SON, 183 Reade Street.

HILDRETH BROS. & SEGELKEN.

28 & 30 West Broadway.

San Francisco, Calif.

SCHACHT, LEMOKE & STEINER, 10 Drumm St.

Minneapolis, Minn.

J. A. SHEA & Co., 14 & 16 Hennepin Avenue.

Kansas City, Mo.

HAMBLIN & BEARSS, 514 Walnut Street.

CLEMOMS-MASON COM. CO., 521 Walnut St.

Albany, N. Y.

H. R. WRIGHT, 326 & 328 Broadway

Hamilton, Ills.

CHAS. DADANT & SON.

Cincinnati, Ohio.

C. F. MUTH & SON, cor. Freeman & Central avs.

Bee-Keeping for Profit.

—We have just issued a revised and enlarged edition of Dr. Tinker's book, called "Bee-Keeping for Profit." It details his most excellent "new system, or how to get the largest yields of comb and extracted honey." The book contains 80 pages in all, and is illustrated. Price, postpaid, 25 cents, or clubbed with the BEE JOURNAL for one year, for \$1.15.

Please Send Us the Names of your neighbors who keep bees, and we will send them sample copies of the BEE JOURNAL. Then please call upon them and get them to subscribe with you, and secure some of the premiums we offer.

Wants or Exchanges.

Under this heading, Notices of 5 lines, or less, will be inserted at 10 cents per line, for each insertion, when specially ordered into this Department. If over 5 lines, the additional lines will cost 20 cents each.

TO EXCHANGE—High Grade Safety Bicycle, for Honey or Wax.
17A4f J. A. GREEN, Ottawa, Ill.

TO EXCHANGE—Good 6-inch Vandervort Fdn. Mill, for wax, honey, or offers.
J. H. & A. L. BOYDEN,
18A4t Saline, Mich.